

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A method of controlling a mobile communications system which comprises a control plane controller and a plurality of user plane controllers, radio access network, disposed between user equipment and an exchange network, which comprises user plane control means for controlling a transfer of user data related to said user equipment, and control plane control means for controlling a transfer of a control signal for signalling control, said user plane control means being physically separated from said control plane control means, said method comprising:

reporting status information of said plurality of user plane controllers to said control plane controller; and

causing said control plane controller to store said status information in a memory.  
a first step at which said user plane control means reports its own status information to said control plane control means to which said user plane control means belongs; and

a second step at which said control plane control means stores the status information reported from said user plane control means in storing means for management of each of user plane control means subordinate thereto.

2. (currently amended): The method of controlling a mobile communications system according to claim 1,

further comprising physically separating said plurality of user plane controllers from said control plane controller.

radio-access network according to claim 1, wherein said status information of said user plane control means includes traffic information within said user plane control means.

3. (currently amended): The method of controlling a mobile communications system radio-access network according to claim 1, wherein further comprising, including with said status information of said user plane control means includes traffic information within said plurality of a bandwidth of a channel directed to the outside from said user plane controller control means.

4. (currently amended): The method of controlling a mobile communications system radio-access network according to claim 1, wherein further comprising, including with said status information of said user plane control means includes bandwidth alarm information of a channel directed to the outside from detected in said plurality of user plane controller control means.

5. (currently amended): The method of controlling a mobile communications system radio-access network according to claim 1, wherein further comprising, including with said status information alarm information detected in said plurality of user plane controllers at said first step, said user plane control means reports the status information to said control plane control means each time said user plane control means receives a request for transmitting the status information from said control plane control means.

6. (currently amended): The method of controlling a mobile communications system radio-access network according to claim 1, further comprising, wherein at said first

~~step, reporting from said plurality of user plane control means controllers reports said~~ the status information to said control plane ~~control means~~ controller upon receipt of a request for transmitting said status information from said control plane controller at a fixed period.

7. (currently amended): The method of controlling a mobile communications system ~~radio access network~~ according to claim 1, further comprising, reporting from ~~wherein at said first step said plurality of user plane control means controllers reports said~~ the status information to said control plane ~~controller at a fixed period~~ ~~control means when a change is found in the status information of said user plane control means.~~

8. (currently amended): The method of controlling a mobile communications system ~~radio access network~~ according to claim 1, further comprising, reporting from said plurality of user plane controllers said status information to said control plane controller if a change is found in said status information ~~a third step at which said control plane control means is operable when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane control means subordinate to said control plane control means moves to an area of a second radio base station, said second radio base station belonging to said first user plane control means, to read the status information of said first user plane control means from said storing means; and~~  
~~a fourth step at which said control plane control means determines based on the status information of said first user plane control means, read from said storing means, whether or not a radio link can be added at said first user plane control means.~~

9. (currently amended): ~~The~~ method of controlling a mobile communications system

which comprises a control plane controller, a first and a second user plane controllers, a first radio base station belonging to said first user plane controller, and a second radio base station belonging to said second user plane controller, comprising:

reporting from said first user plane controller first status information of said first user plane controller to said control plane controller;

reporting from said second user plane controller second status information of said second user plane controller to said control plane controller;

causing said control plane controller to store said first status information and said second status information in a memory, and

when user equipment located in a first area of said first radio base station having a first link to said first user plane controller moves to a second area of said second radio base station, reading out from said control plane controller said second status information from said memory; and

determining at said control plane controller, based on said second status information, whether or not a second radio link can be added at said second user plane controller.

radio-access-network according to claim 8, further comprising a fifth step at which said control plane control means instructs said first user plane control means to add a radio link between said first user plane control means and said second radio base station when said control plane control means determines that a radio link can be added at said first user plane control means:

10. (currently amended): The method of controlling a mobile communications system~~radio-access-network~~ according to claim 9~~4~~, further comprising:

instructing from said control plane controller said second user plane controller through

said first user plane controller to add said second radio link to said second radio base station.

a third step at which said control plane control means is operable when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane control means subordinate to said control plane control means moves to an area of a second radio base station, said second radio base station belonging to second user plane control means subordinate to said control plane control means, to read the status information of said second user plane control means from said storing means; and

a fourth step at which said control plane control means determines based on the status information of said second user plane control means, read from said storing means, whether or not a radio link can be added at said second user plane control means.

11. (currently amended): A The method of controlling a mobile communications system which comprises a plurality of control plane controllers and a user plane controller, comprising: reporting from said user plane controller status information of said user plane controller to said plurality of control plane controllers; and storing at said plurality of control plane controllers said status information in a memory of each of said plurality of control plane controllers.

radio access network according to claim 10, further comprising a fifth step at which said control plane control means instructs said second user plane control means through said first user plane control means to add a radio link between said second user plane control means and said second radio base station when said control plane control means determines that a radio link can be added at said second user plane control means.

12. (currently amended): A mobile communications system comprising:

a plurality of user plane controllers, for reporting status information of said plurality of user plane controllers to a control plane controller, and  
a control plane controller for storing said status information in a memory.

The method of controlling a radio access network according to claim 1, further comprising:

a third step at which said control plane control means is operable when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane control means subordinate to said control plane control means moves to an area of a second radio base station, said second radio base station belonging to second user plane control means subordinate to another control plane control means, to refer to this other control plane control means for status information of said second user plane control means; and

a fourth step at which said control plane control means determines based on the status information of said second user plane control means that is received from this other control plane control means whether or not a radio link can be added at said second user plane control means.

13. (currently amended): The mobile communications system according to claim 12,  
wherein said plurality of user plane controllers are physically separated from said control plane controller.

The method of controlling a radio access network according to claim 12, further comprising a fifth step at which said control plane control means instructs said second user plane control means through said first user plane control means to add a radio link between said second user plane control means and said second radio base station when said control plane control means determines that a radio link can be added at said second user plane control means.

14. (currently amended): The mobile communications system according to claim 12, wherein said status information includes traffic information within said plurality of user plane controllers.

A radio access network disposed between user equipment and an exchange network, and comprising user plane control means for controlling a transfer of user data related to said user equipment, and control plane control means for controlling a transfer of a control signal for signalling control, said user plane control means being physically separated from said control plane control means, wherein:

said user plane control means reports its own status information to said control plane control means to which said user plane control means belongs; and

said control plane control means stores the status information reported from said user plane control means in storing means for management of each of user plane control means subordinate thereto.

15. (currently amended): The mobile communications system according to claim 12, wherein said status information includes bandwidth information of a channel directed to the outside from said plurality of user plane controllers.

The radio access network according to claim 14, wherein said user plane control means reports the status information including traffic information within said user plane control means to said control plane control means.

16. (currently amended): The mobile communications system according to claim 12, wherein said status information includes alarm information detected in said plurality of

user plane controllers.

The radio access network according to claim 14, wherein said user plane control means reports the status information, including information on a bandwidth of a channel directed from said user plane control means to the outside, to said control plane control means.

17. (currently amended): The mobile communications system according to claim 12,  
wherein said plurality of user plane controllers further includes means for reporting said  
status information to said control plane controller upon receipt of a request for transmitting said  
status information from said control plane controller.

radio access network according to claim 14, wherein said user plane control means  
reports the status information including alarming information detected in said user plane control  
means to said control plane control means.

18. (currently amended): The mobile communications system according to claim 12,  
wherein said plurality of user plane controllers further includes means for reporting said  
status information to said control plane controller at a fixed period.

radio access network according to claim 14, wherein said user plane control means  
reports the status information to said control plane control means each time said user plane  
control means receives a request for transmitting the status information from said control plane  
control means.

19. (currently amended): The mobile communications system according to claim  
12, radio access network according to claim 14,  
wherein said plurality of user plane controllers further includes means for reporting said



status information to said control plane controller if a change is found in said status information.  
~~wherein said user plane control means reports the status information to said control plane control means at a fixed period.~~

20. (currently amended): The mobile communications system according to claim 12,  
further comprising:

user equipment.  
~~radio access network according to claim 14, wherein said user plane control means reports the status information to said control plane control means when a change is found in the status information of said user plane control means.~~

21. (currently amended): A mobile communication system comprising:  
a control plane controller for storing first status information and second status information in a memory;

a first user plane controller for reporting a first status information of said first user plane controller to said control plane controller;

a second user plane controller for reporting a second status information of said second user plane controller to said control plane controller;

a first radio base station that belongs to said first user plane controller; and  
a second radio base station that belongs to said second user plane controller;  
~~wherein said control plane controller stores said first status information and second status information in a memory.~~

said control plane controller including means for reading out said second status information from said memory, when user equipment located in a first area of said first radio

base station having a first link to said first user plane controller moves to a second area of said second radio base station, and

said control plane controller including means for determining based on said second status information, whether or not a second radio link can be added at said second user plane controller.

The radio access network according to claim 14, wherein said control plane control means is operable when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane control means subordinate to said control plane control means moves to an area of a second radio base station, said second radio base station belonging to said first user plane control means, to read the status information of said first user plane control means from said storing means, and determines based on the read status information of said first user plane control means whether or not a radio link can be added at said first user plane control means

22. (currently amended): The ~~mobile communications system~~ radio access network according to claim 21,

wherein said control plane controller includes means for instructing said second user plane controller through said first user plane controller to add said second radio link to said second radio base station, control means instructs said first user plane control means to add a radio link between said first user plane control means and said second radio base station when said control plane control means determines that a radio link can be added at said first user plane control means.

23. (currently amended): A mobile communications system comprising:  
a plurality of control plane controllers for storing status information in a memory; and

a user plane controller for reporting status information of said user plane controller to said plurality of control plane controllers.

The radio access network according to claim 14, wherein said control plane control means is operable when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane control means subordinate to said control plane control means moves to an area of a second radio base station, said second radio base station belonging to second user plane control means subordinate to said control plane control means, to read the status information of said second user plane control means from said storing means, and determines based on the read status information of said second user plane control means whether or not a radio link can be added at said second user plane control means.

24. (currently amended): The mobile communications system~~radio access network~~ according to claim 23, comprising:

user equipment.

~~wherein said control plane control means instructs said second user plane control means through said first user plane control means to add a radio link between said second user plane control means and said second radio base station when said control plane control means determines that a radio link can be added at said second user plane control means.~~

25. (currently amended): The radio access network according to claim 14, wherein including means for operating said control plane~~control means is operable controller~~ when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane controller~~er means~~ subordinate to said control

plane controller ~~means~~ moves to an area of a second radio base station, said second radio base station belonging to second user plane controller ~~means~~ subordinate to another control plane controller ~~means~~, to refer to this other control plane controller ~~means~~ for status information of said second user plane controller ~~means~~, and ~~determines determining~~ based on the status information of said second user plane controller ~~means~~ that is received from this other control plane controller ~~means~~ whether or not a radio link can be added at said second user plane controller ~~means~~.

26. (currently amended): The radio access network according to claim 25, wherein said control plane controller ~~means instructs~~ includes means for instructing said second user plane controller ~~means~~ through said first user plane controller ~~means~~ to add a radio link between said second user plane controller ~~means~~ and said second radio base station when said control plane controller ~~means~~ determines that a radio link can be added at said second user plane controller ~~means~~.